

Reviving Inland Waterways

Posted at: 25/04/2025

Reviving Inland Waterways: India's Sustainable Transport Revolution

Context

India, endowed with over **14,500 km of navigable waterways**, has long underutilized its potential for cargo and passenger movement. Traditionally overshadowed by rail and road transport, the **Inland Water Transport (IWT)** sector has recently witnessed a remarkable resurgence. This transformation has been driven by targeted government policies, infrastructure investments, and technological innovations.

A striking milestone was achieved in **FY 2024-25**, with India recording an **all-time high cargo movement of 145.5 MMT**, compared to a mere **18.1 MMT in FY 2013-14**, registering a **Compound Annual Growth Rate (CAGR) of 20.86%**. This surge reflects a structural shift in India's logistics and transportation landscape.

Key Statistics on Indian Inland Waterways

1. Cargo Traffic Growth

- **FY 2013-14: 18.1 million metric tonnes (MMT)**
- **FY 2024-25: 145.5 MMT**
- **Growth Rate: CAGR of 20.86%**

2. National Waterways Expansion

- **2014: 5 National Waterways**
- **2024: 111 National Waterways**, post the **National Waterways Act, 2016**

3. Operational Waterway Length

- **2014-15: 2,716 km**

- **2023-24: 4,894 km**

4. Passenger Movement

- **FY 2023-24: Reached 1.61 crore**

5. Top Commodities Transported

- **Coal, iron ore, sand, and fly ash** make up **over 68%** of the total cargo.

Major Achievements in the Inland Waterways Sector

1. Digital Innovations

- Introduction of platforms such as **LADIS (Least Available Depth Information System)**, **RIS (River Information System)**, **PANI (Portal for Asset & Navigation Information)**, **Car-D**, and **MIRS** for improved **navigational safety, data transparency, and route planning**.

2. Infrastructure Development

- Establishment of **3 Multi-Modal Terminals (MMTs)** at **Varanasi, Sahibganj, and Haldia**.
- **1 Intermodal Terminal (IMT)** at **Kalughat**.
- Development of **community jetties** and introduction of **green vessels** for sustainable navigation.

3. Policy Reforms

- **Jalvahak Scheme** for supporting vessel operations.
- **Extension of Tonnage Tax benefits** to inland vessels.

- Integration of IWT in national logistics planning and PM Gati Shakti framework.

4. Global Benchmarking

- IWT now viewed as a **cost-effective and environment-friendly alternative** to traditional transport modes like rail and road.
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Challenges to Inland Waterways Development

1. Sparse Industrial Hubs Along Waterways

- Lack of significant manufacturing or processing clusters near riverbanks reduces freight volumes and affects corridor viability.

2. Multimodal Connectivity Gaps

- Insufficient integration with **rail and road networks** leads to delays and increased **logistics costs**.

3. Seasonal Navigability Issues

- Rivers often face **depth fluctuations during dry seasons**, disrupting year-round operations and impacting schedule reliability.

4. Environmental Concerns

- **Large-scale dredging** and infrastructure development may harm **aquatic biodiversity and river ecosystems** unless sustainability measures are adopted.

5. Low Modal Share

- Despite high potential, IWT accounts for **only 2% of total cargo movement**, indicating **underutilization** and **limited industry preference**.
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Way Forward

To unlock the full potential of inland waterways, a multi-dimensional approach is essential:

1. Encourage Private Participation

- Promote **Public-Private Partnerships (PPPs)** for terminals, jetties, and cargo-handling systems to boost efficiency and innovation.

2. Capacity Building and Skilling

- Train **inland vessel crews, logistics professionals, and port operators** to enhance safety and operational readiness.

3. Environmental Safeguards

- Adopt **eco-friendly dredging technologies** and sustainable port designs to reduce environmental damage and promote green logistics.

4. Awareness and Outreach

- Conduct nationwide campaigns highlighting the **economic and environmental benefits** of IWT to shift freight away from overburdened rail and road networks.

5. Multimodal Integration

- Develop **integrated logistics hubs and parks**, connecting waterways to **national highways and freight rail corridors** for seamless end-to-end transport.

Conclusion

India's inland water transport sector is undergoing a **paradigm shift**, evolving from a neglected mode to a **strategically prioritized logistics solution**. With consistent investment in **infrastructure, digital tools, and policy support**, the sector is poised to play a central role in India's vision of **low-cost, sustainable, and efficient freight movement**.

If the current momentum continues—anchored in **green technology, digital transparency, and industrial alignment**—India's IWT could become a global model, significantly contributing to **logistics competitiveness and environmental sustainability** in the 21st century.